

Claims after this response:

1(Currently Amended). A color sensor, said color sensor comprising:

a plurality of photodetectors;

a plurality of primary color filters, each primary color filter comprising a layer of material overlying a corresponding one of said photodetectors, each primary color filter transmitting light in a corresponding band of wavelengths about a characteristic wavelength, that primary filter transmitting more light at said characteristic wavelength than that primary color filter transmits at a wavelength outside of said band of wavelengths; and

a first trim filter overlying all of said photodetectors, said first trim filter comprising a layer of material that attenuates light at a first trim wavelength more than said first trim filter attenuates light at each of two of said characteristic wavelengths, wherein said first trim wavelength is between said two of said characteristic wavelengths.

2(Currently amended). The color sensor of Claim 1 where said first trim filter further attenuates light at a second trim wavelength, said first trim wavelength being less than one of said characteristic wavelengths and said second trim wavelength being greater than that characteristic wavelength.

3(Currently Amended). ~~The color sensor of Claim 1~~ A color sensor, said color sensor comprising:

a plurality of photodetectors;

a plurality of primary color filters, each primary color filter comprising a layer of material overlying a corresponding one of said photodetectors, each primary color filter transmitting light in a corresponding band of wavelengths about a characteristic wavelength, that primary filter transmitting more light at said characteristic wavelength than that primary color filter transmits at a wavelength outside of said band of wavelengths; and

a first trim filter overlying all of said photodetectors, said first trim filter comprising a layer of material that attenuates light at a first trim wavelength more than said first trim filter attenuates light at each of two of said characteristic wavelengths,

wherein said first trim filter comprises an interference filter.

4(Original). The color sensor of Claim 1 further comprising a substrate having said photodetectors located therein, said first trim filter comprising a first trim filter layer on said substrate.

5(Original). The color sensor of Claim 4 wherein said color filters are located on said first trim filter layer.

6(Original). The color sensor of Claim 1 wherein said color filters are located between said first trim filter and said photodetectors.

7(Previously Presented). The color sensor of Claim 1 further comprising a second trim filter, said second trim filter comprising a layer of material that attenuates light at a second wavelength that is different from each of said characteristic wavelengths and said first trim wavelength.

8(Original). The color sensor of Claim 7 wherein said color filters are located between said first and second trim filters.

9(Currently Amended). A method for fabricating a color sensor that provides signals indicative of the color of light from a light source, said method comprising:

providing a substrate having a plurality of photodetectors;

bonding a first trim filter layer to said substrate such that said first trim filter layer covers all of said photodetectors;

bonding a color filter layer to said first trim filter layer, said color filter layer comprising a plurality of primary color filters, each primary color filter comprising a layer of material between said light source and a corresponding one of said photodetectors, each primary color filter transmitting light in a corresponding band of wavelengths about a characteristic wavelength, that primary filter transmitting more light at said characteristic wavelength than that primary color filter transmits at a wavelength outside of said band of wavelengths,

wherein said first trim filter comprises a layer of material that attenuates light at a first trim wavelength more than said first trim filter attenuates light at each of two of said characteristic wavelengths, wherein said first trim wavelength is between said two of said characteristic wavelengths.

10(Currently Amended). The method of Claim 9 where said first trim filter layer further attenuates light at a second trim wavelength, said first trim wavelength being less than one of said characteristic wavelengths and said second trim wavelength being greater than that characteristic wavelength said first trim filter layer attenuating light at said second trim wavelength more than said first trim filter layer attenuates light at each of that characteristic wavelength.

11(Previously Presented). The method of Claim 9 wherein said first trim filter layer comprises a plurality of transparent layers in which adjacent layers have different indices of refraction.

12(Original). The method of Claim 9 further comprising bonding a second trim filter layer to said color filter layer such that said color filter layer is between said first and second trim filter layers.